

FIG. 1

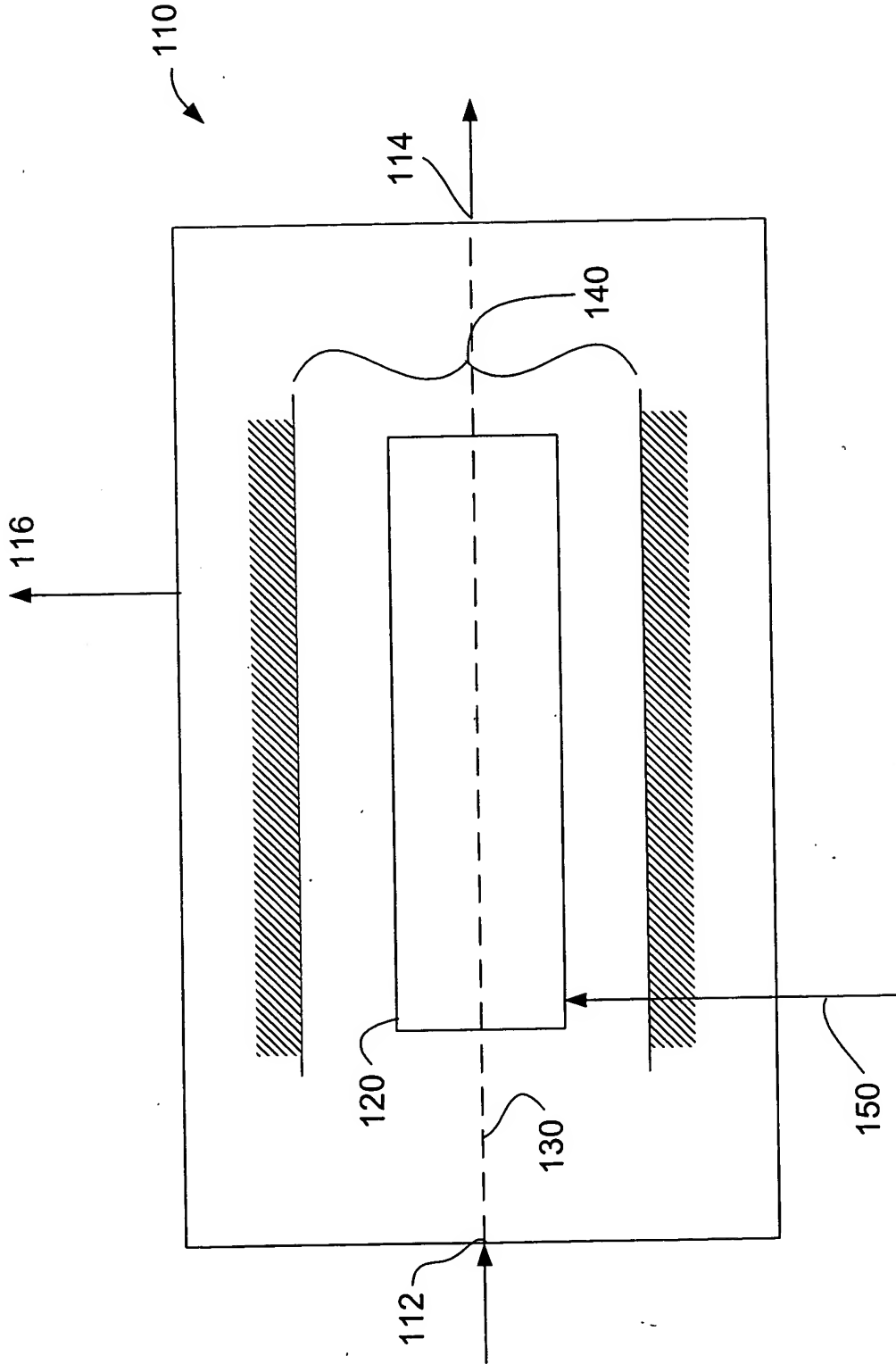


Fig. 1

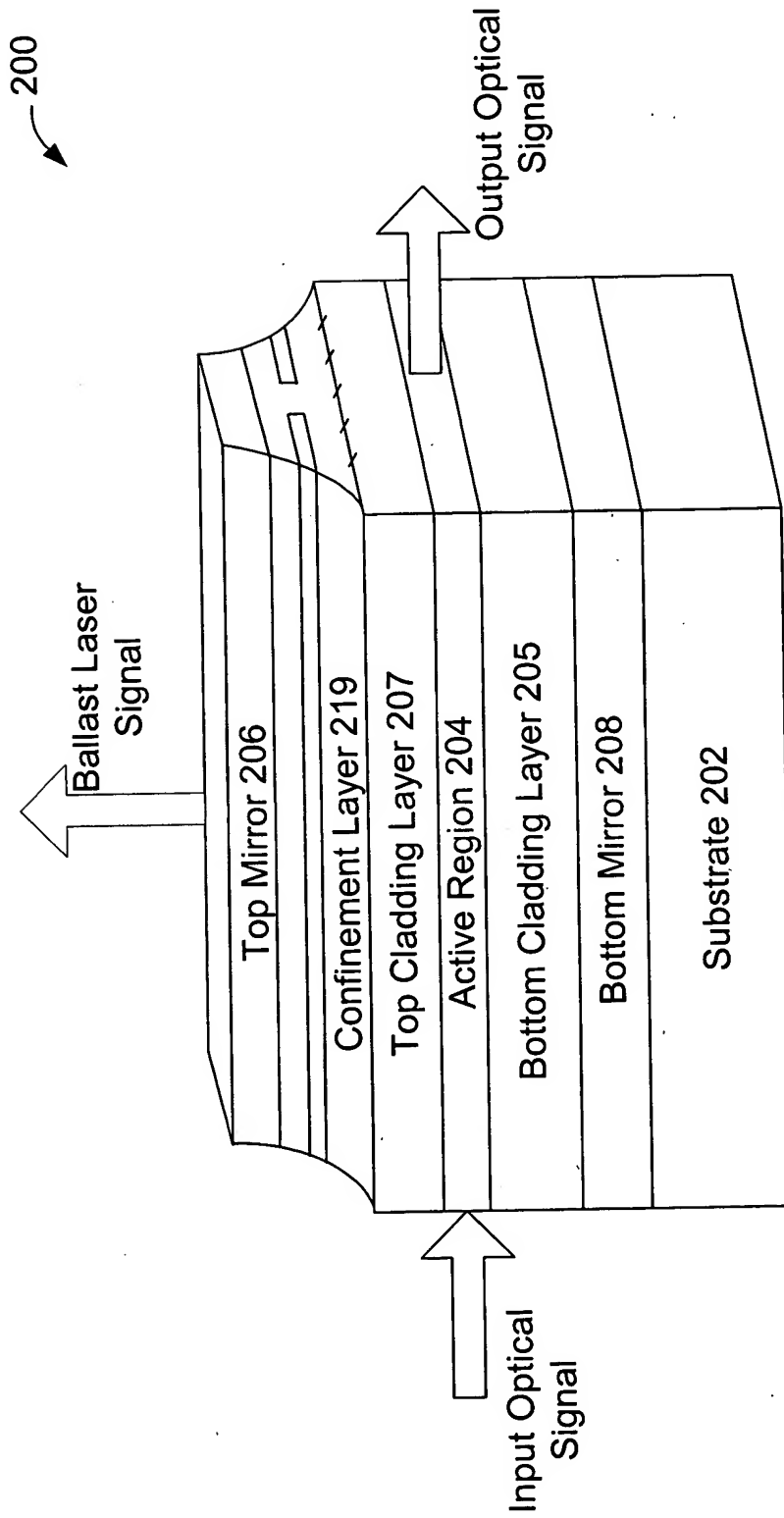


Fig. 2A

FIG. 2B

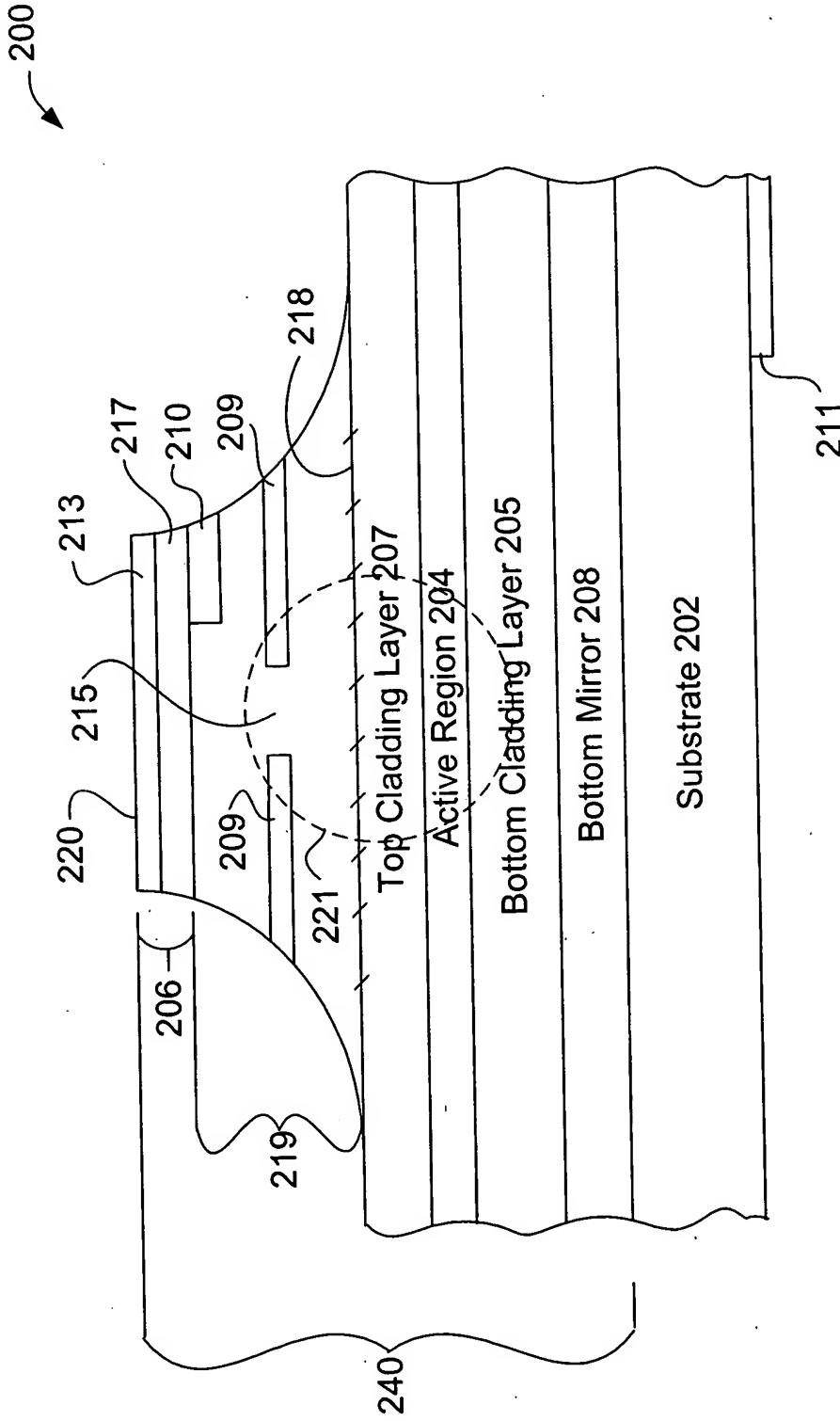


Fig. 2B

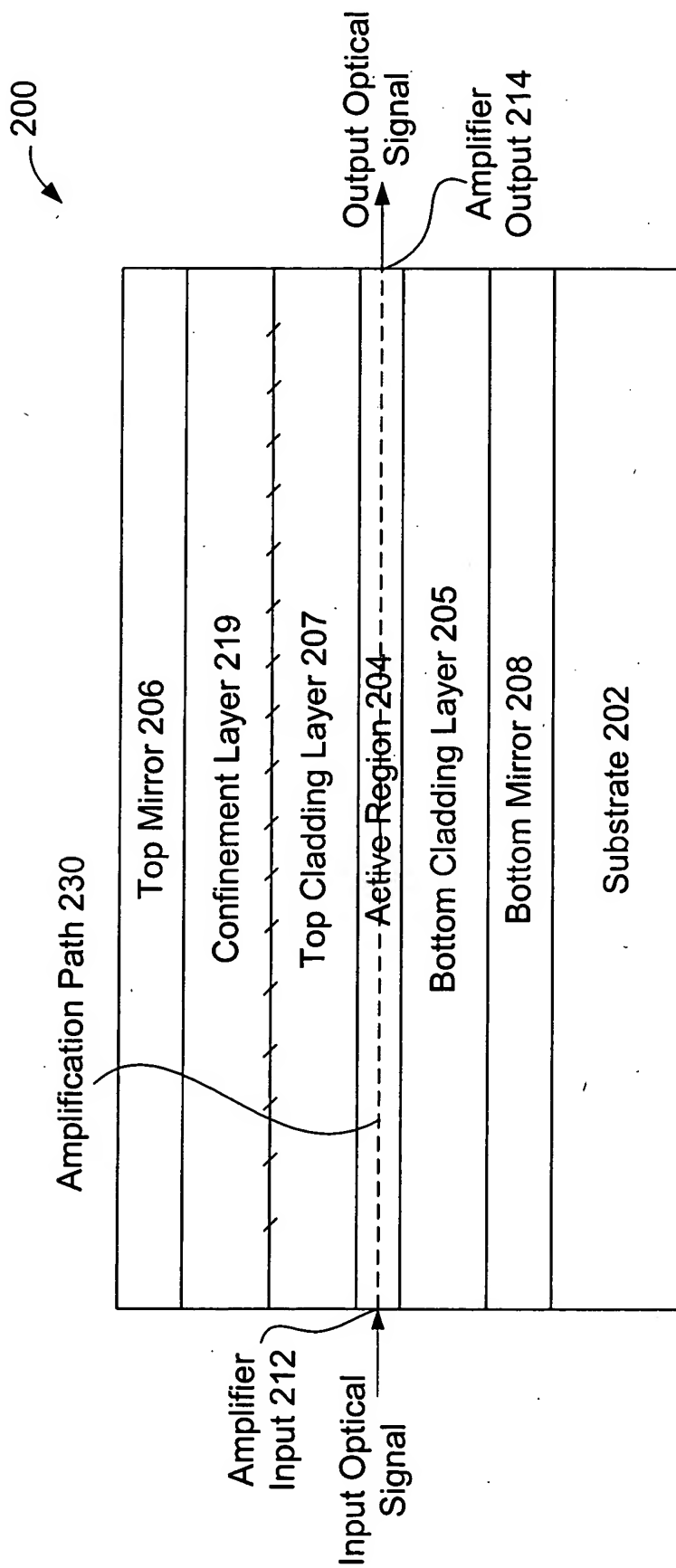


Fig. 2C

FIG. 2D

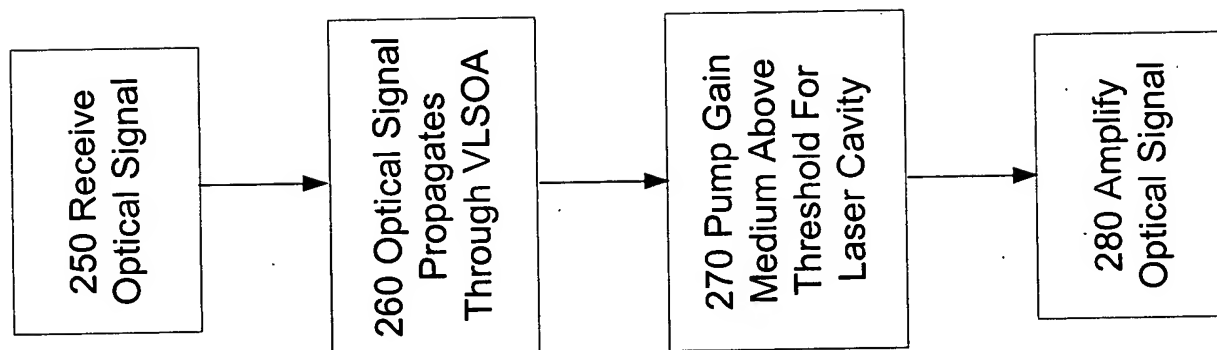


Fig. 2D

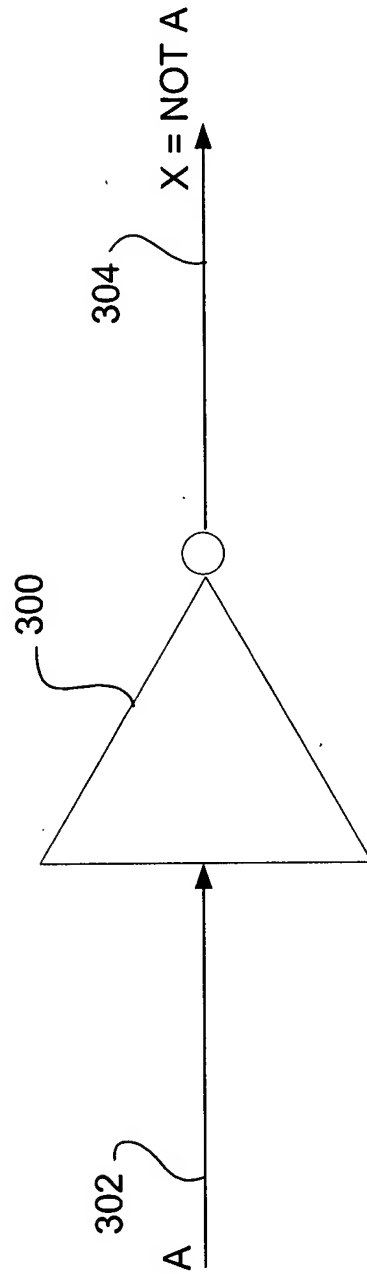


Fig. 3A

FIG. 3A

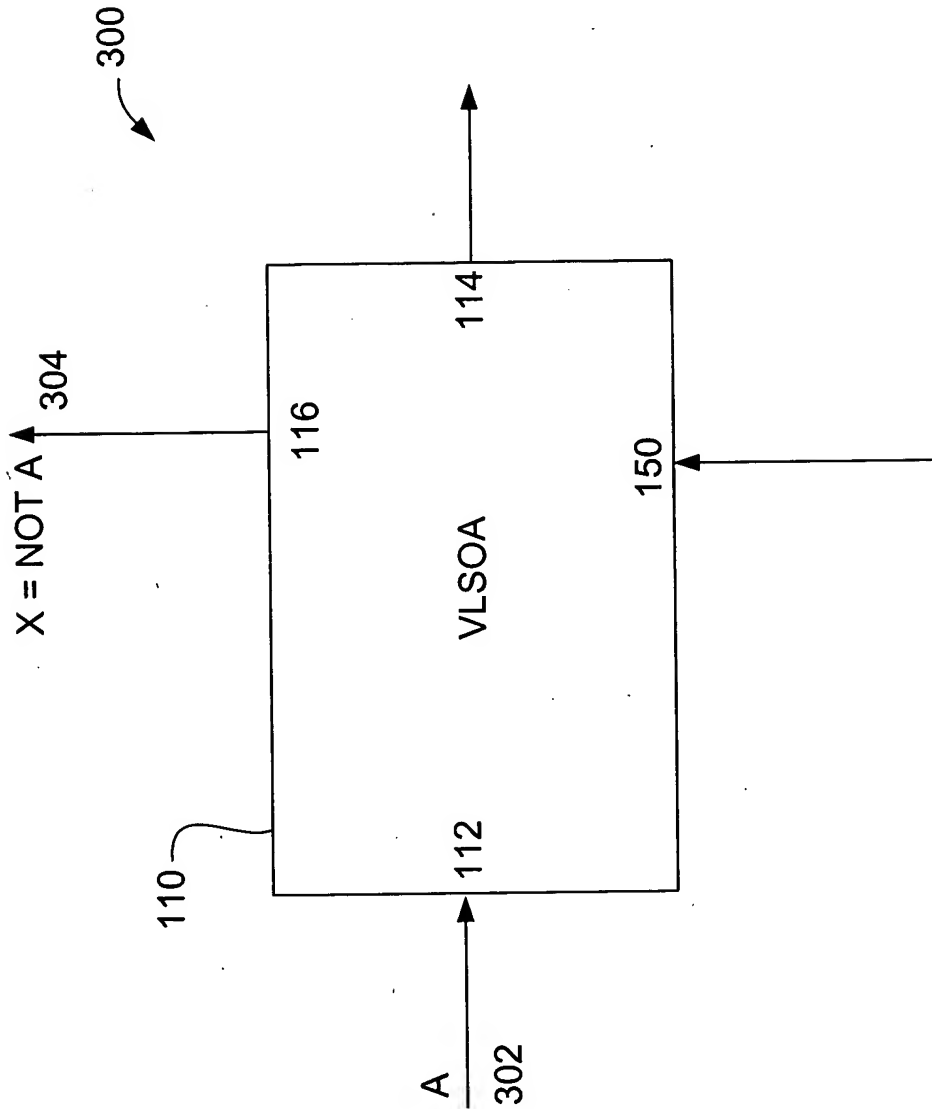


Fig. 3B

FIG. 3B

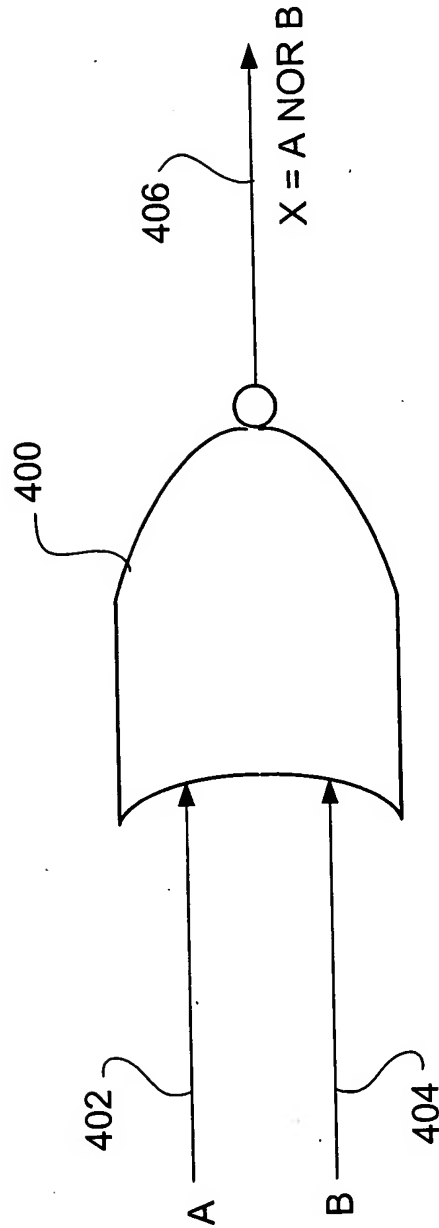


Fig. 4A



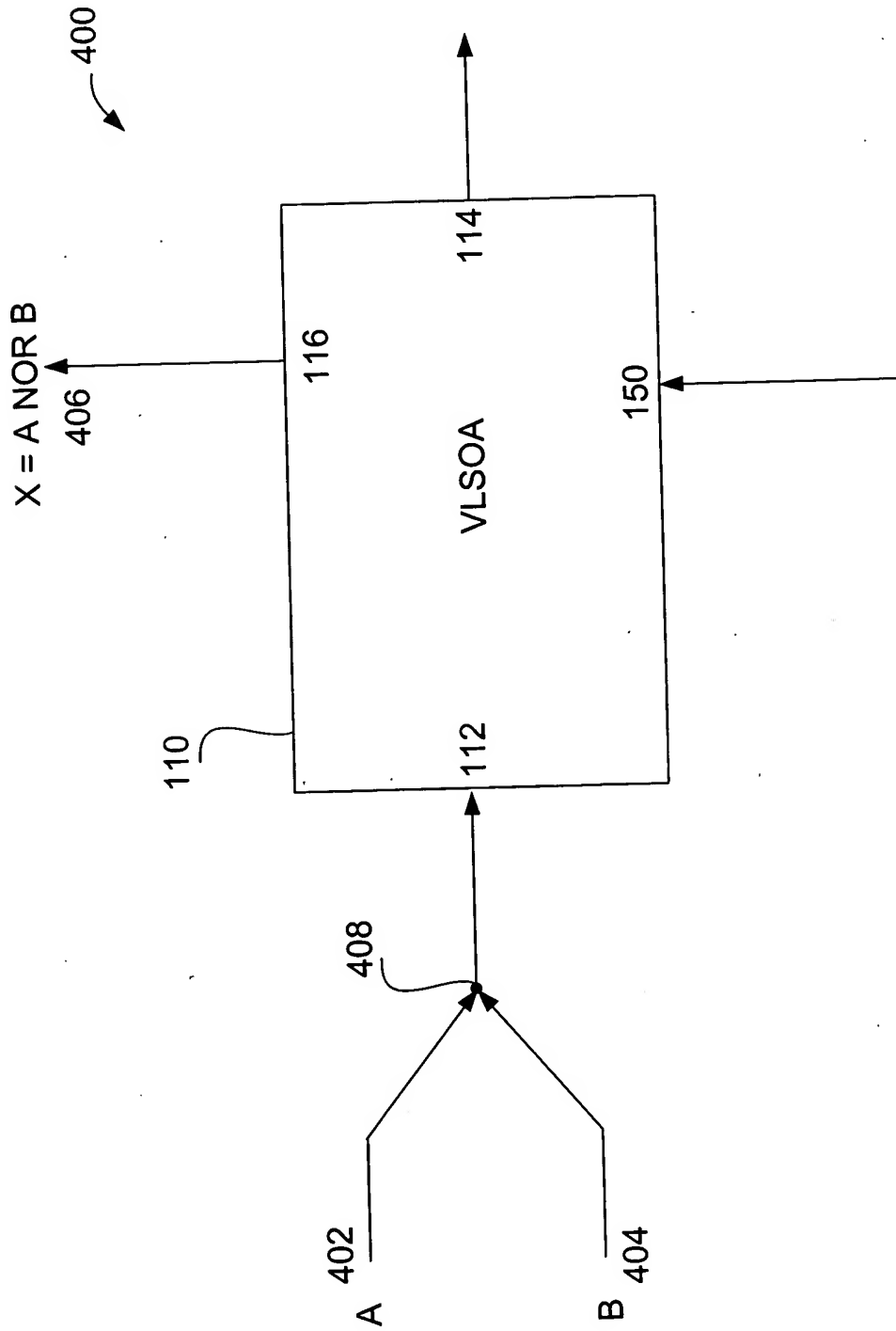


Fig. 4B

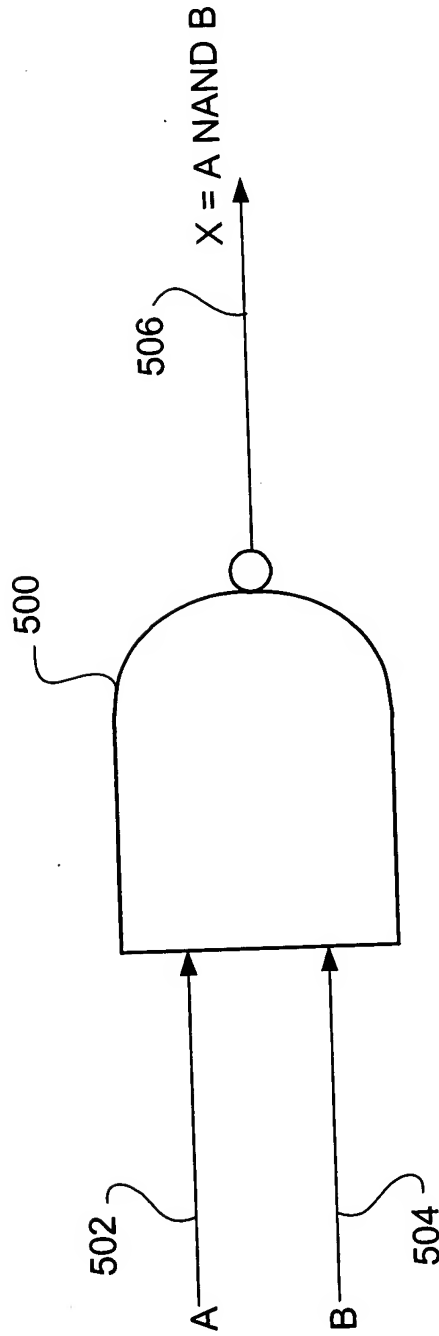


Fig. 5A

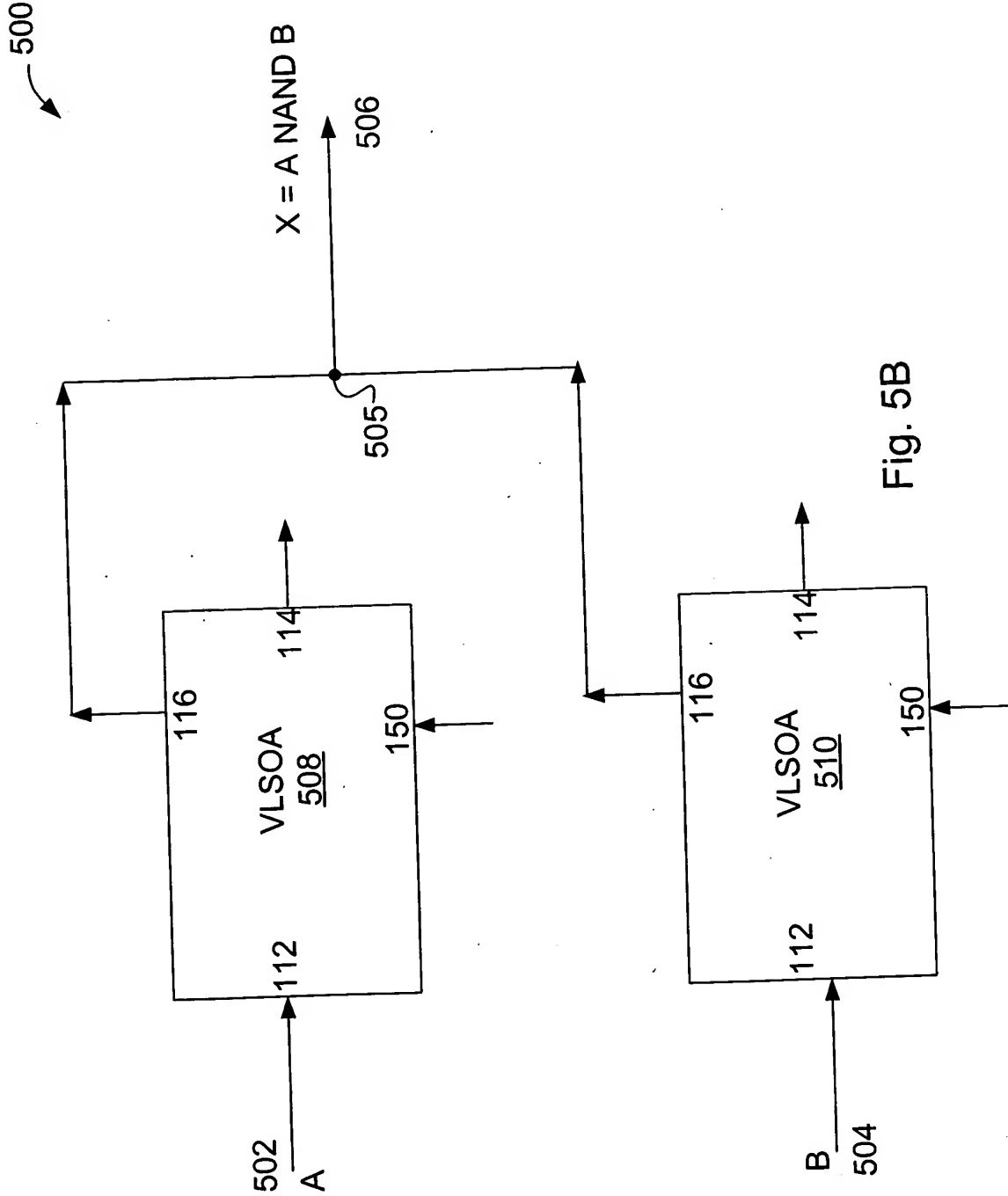


Fig. 5B

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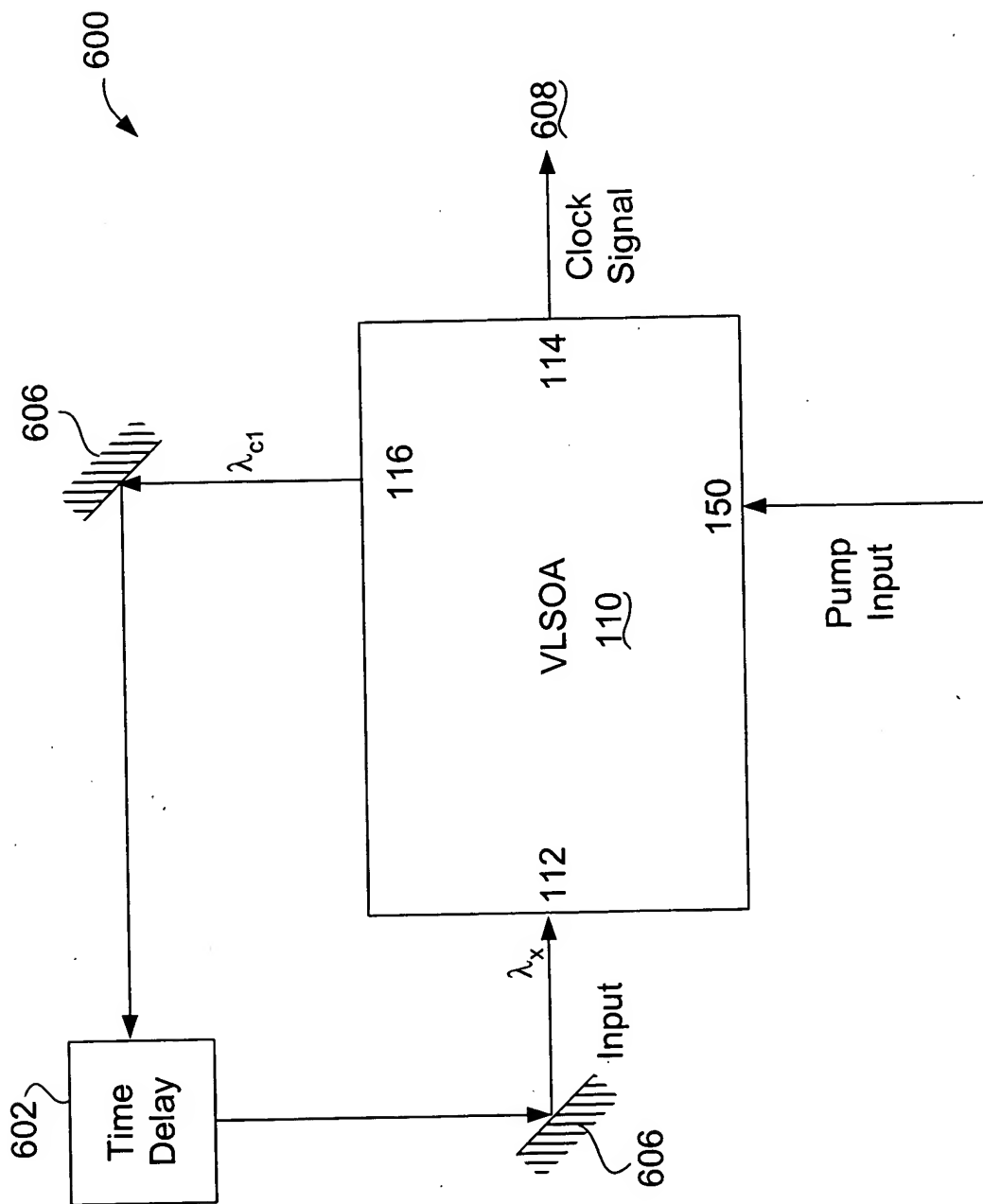


Fig. 6

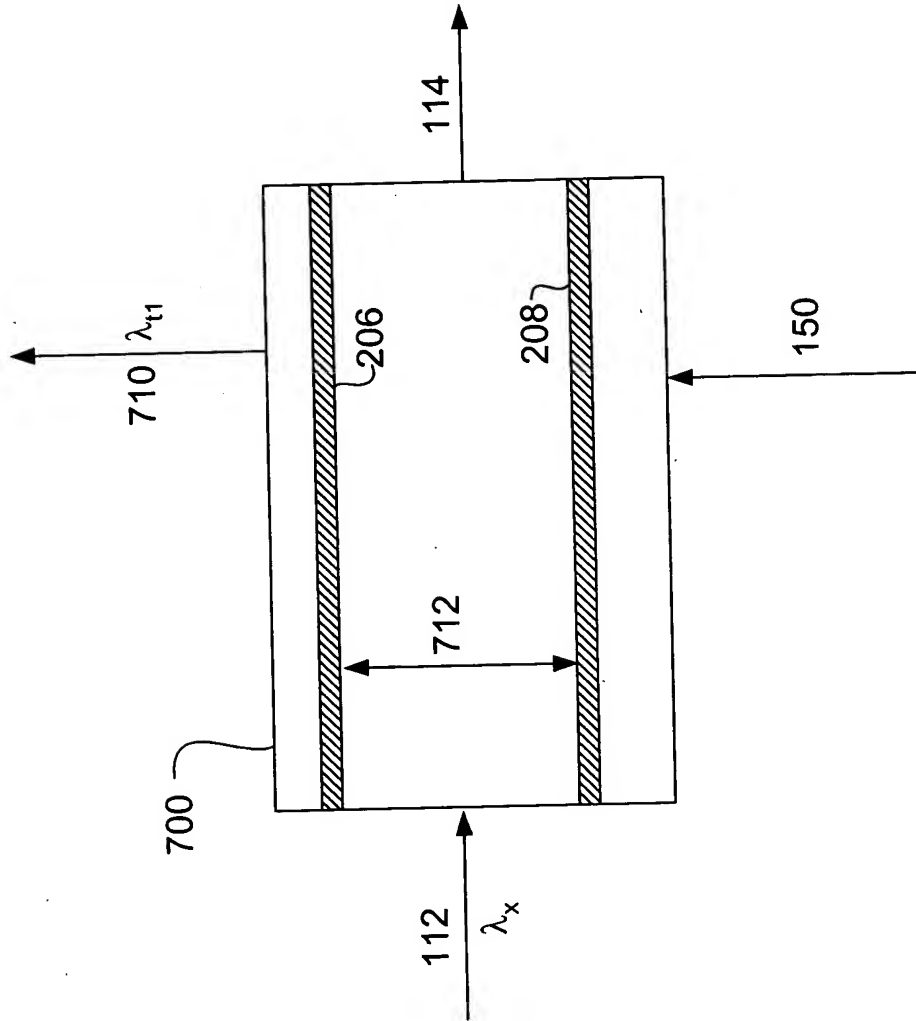


Fig. 7

FIG. 7

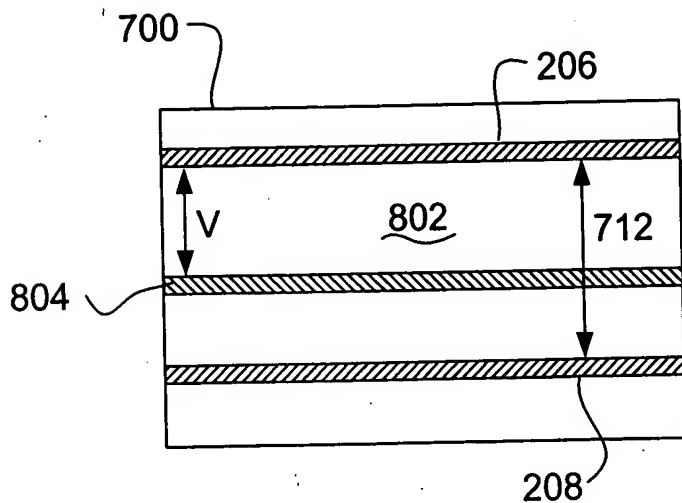


Fig. 8A

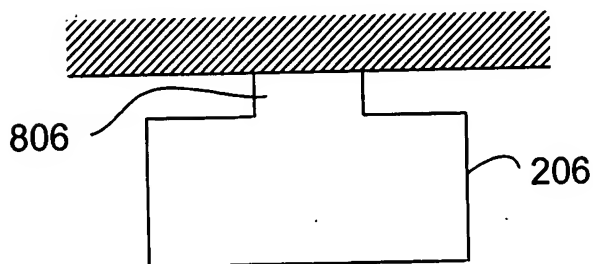


Fig. 8B

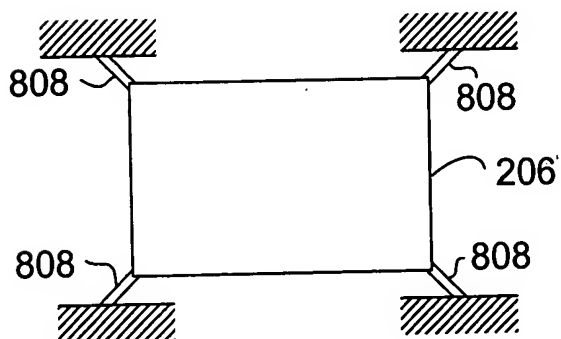


Fig. 8C

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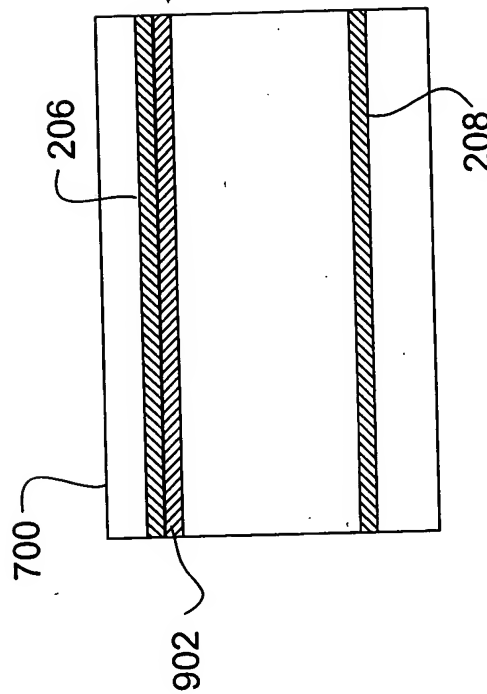


Fig. 9

FIG. 9

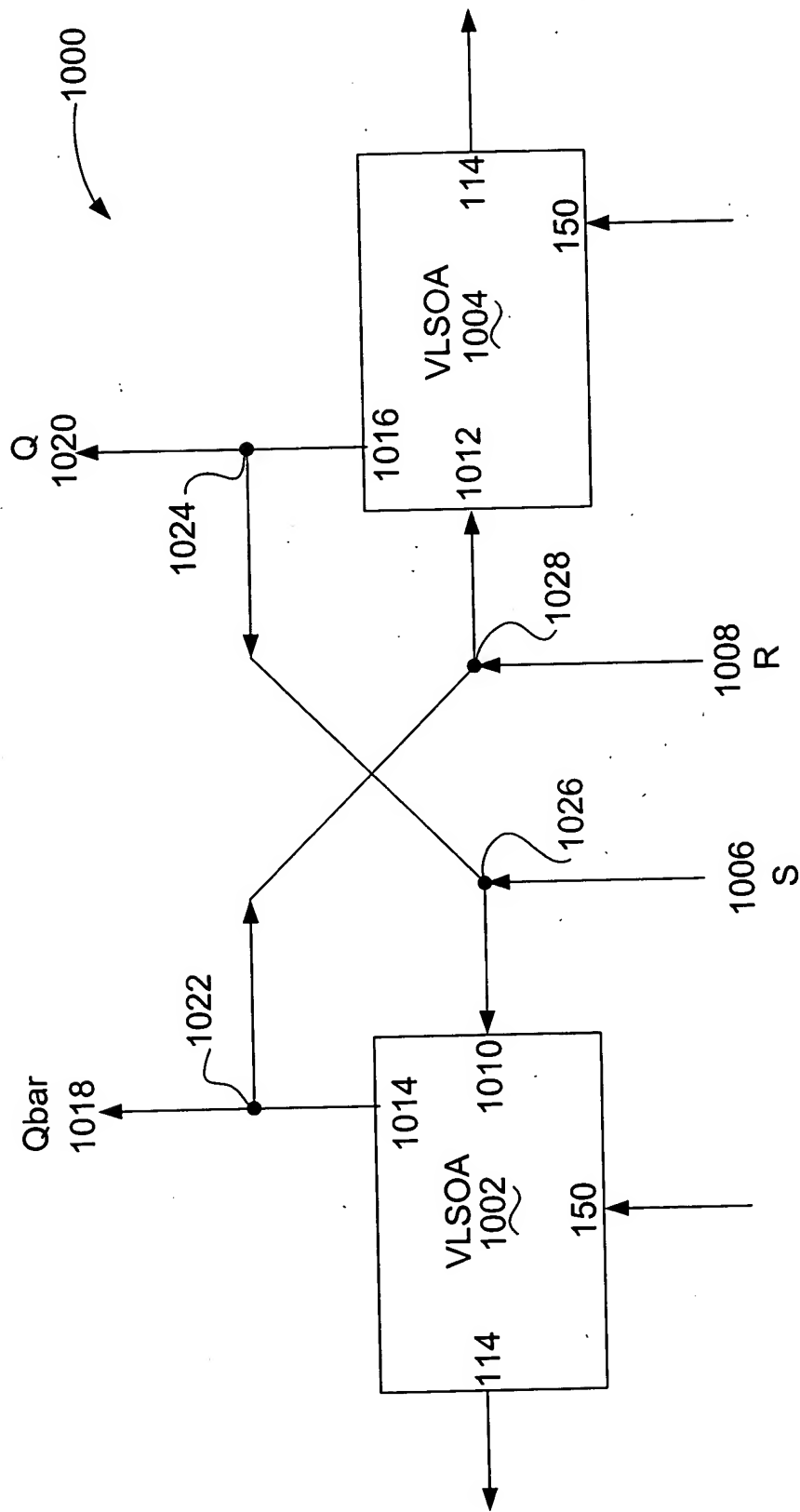


Fig. 10

FIG. 10



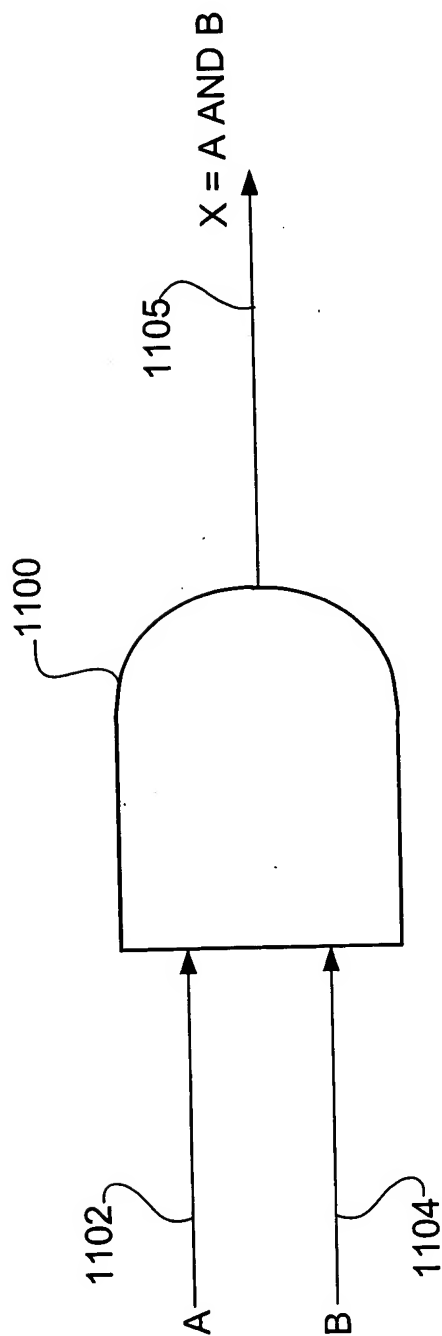


Fig. 11A

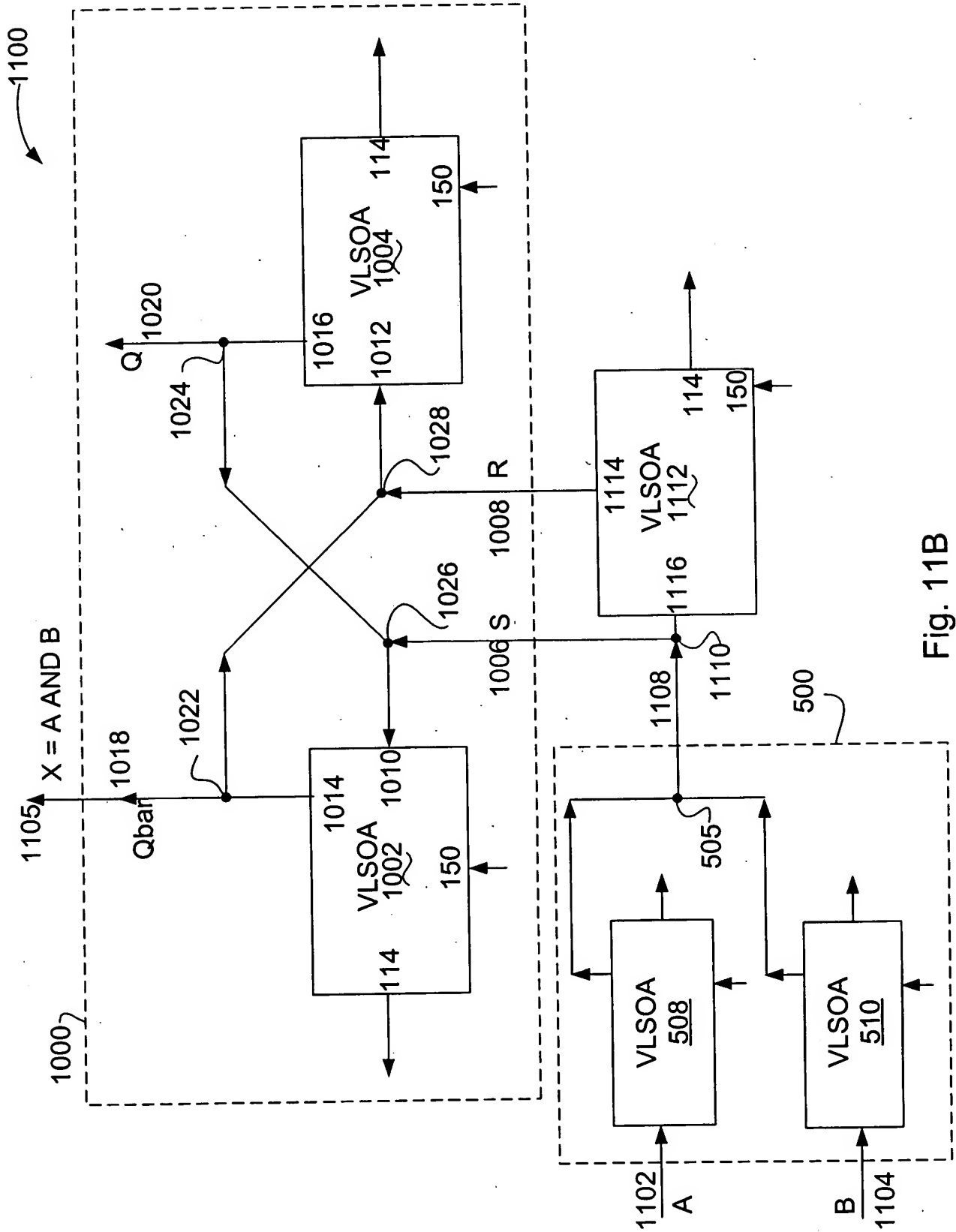


Fig. 11B

FIG. 11B

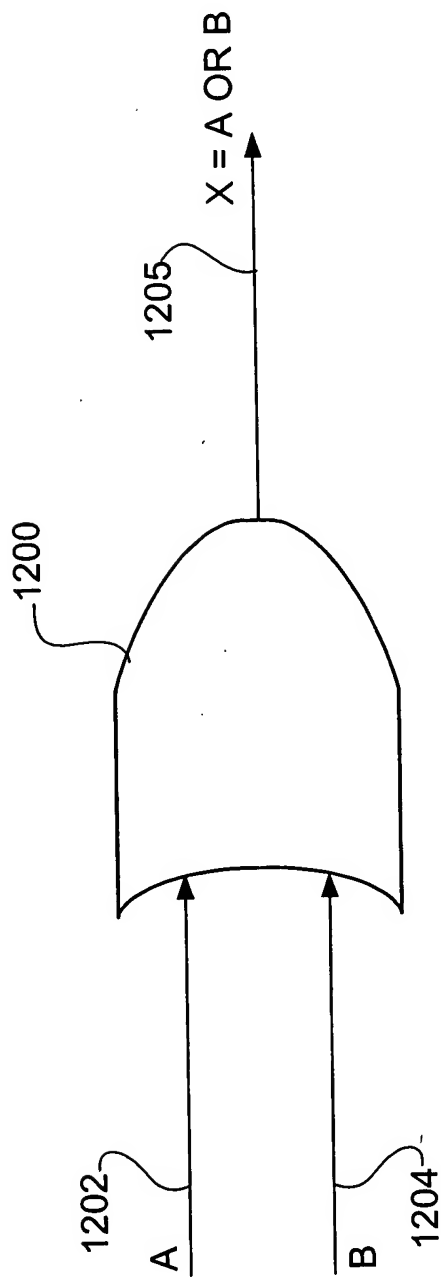


Fig. 12A

FIG. 1 is a schematic diagram of a quantum circuit 1000, which is a quantum circuit for a quantum computer. The circuit 1000 is enclosed in a dashed box. It includes two VLSOA blocks, 1014 and 1016, each with an input 150 and an output 114. The circuit also includes two VLSOA blocks, 1214 and 1216, each with an input 150 and an output 114. The circuit is configured to perform a quantum operation on two input qubits, A and B, to produce two output qubits, Q and Qbar. The circuit includes a series of quantum gates and control lines, including a control line 1006 S, a control line 1008 R, and a control line 1210. The circuit is labeled with various reference numerals, including 1000, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1202, 1204, 1206, 1208, 1210, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300.

FIG. 13

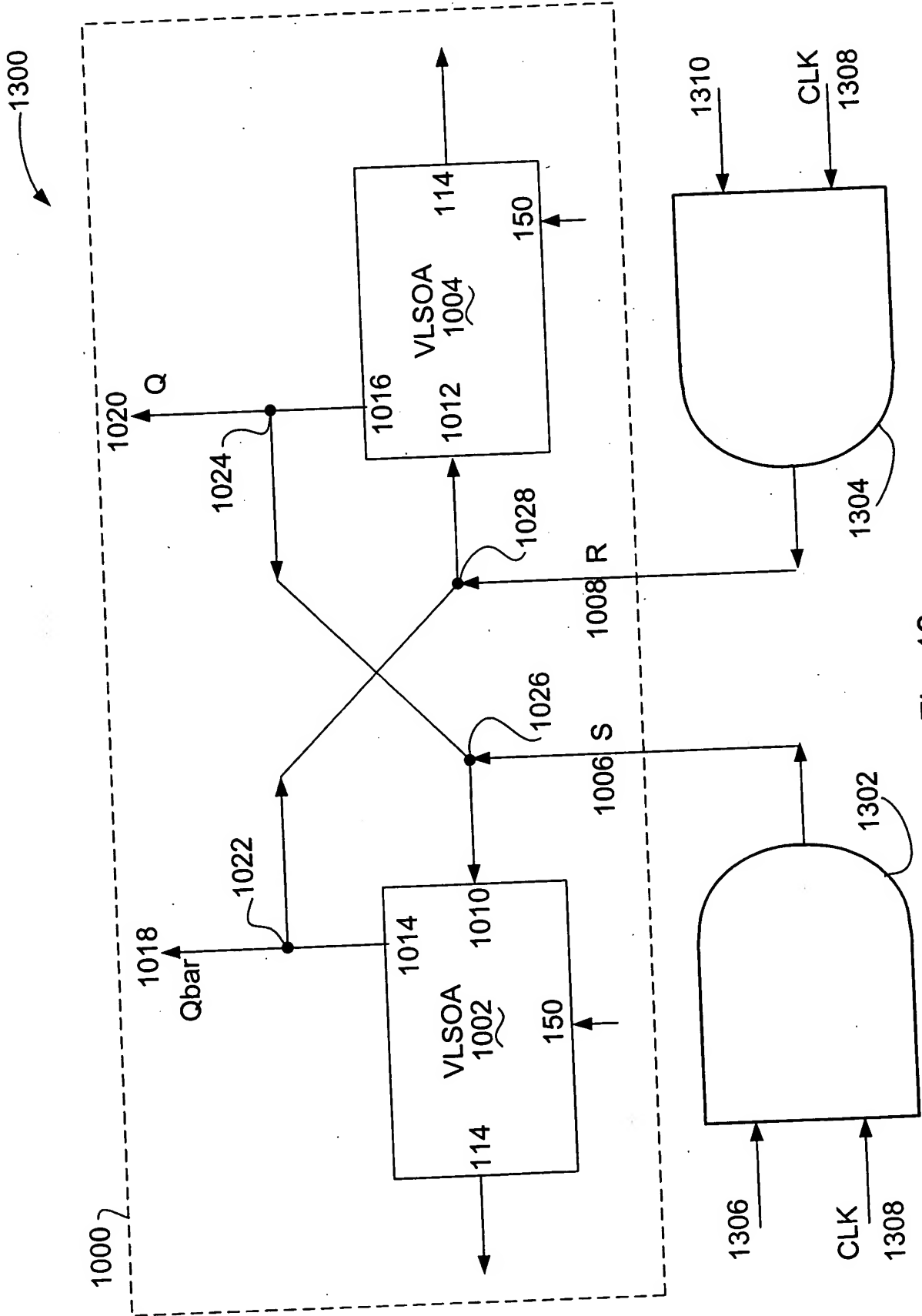


Fig. 13